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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,487	04/12/2004	Peter Oosterhoff	P-11071.01	3020

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EXAMINER	
HELLER, TAMMIE K	
ART UNIT	**PAPER NUMBER**
3766	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/822,487	OOSTERHOFF ET AL.	
	Examiner	Art Unit	
	Tammie Heller	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 25 March 2006 has been received and considered. By this amendment, claims 1, 6, 9, 11, 15, 18, 21, 26, and 29 have been amended, and claims 1-30 are now pending in the application.

Double Patenting

2. The provisional statutory double patenting rejection made against claims 1-30 in the previous Office Action was not addressed in Applicant's reply. Therefore, the provisional statutory double patenting rejection made against claims 1-30 stands.

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 1-30 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 and 16-31 of copending Application No. 10/424,585.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Response to Arguments

5. Applicant's arguments filed 25 March 2006 have been fully considered but they are not persuasive.

6. Regarding the rejection of claims 1-5, 11-14, and 21-25 as being anticipated by Park, the Applicant argues that Park fails to teach each and every aspect of the claimed invention. Specifically, the Applicant argues that Park fails to teach extending a pacing interval between the delivered pacing pulse and a subsequently delivered pacing pulse based on the detection of intrinsic ventricular activity. However, Park discloses that during the resynchronization step 208 of Figure 2, that the pacing rate was gradually reduced by a selected delta rate (see paragraph 47). Therefore, during the resynchronization step 208 of Park the pacing interval is extended between the delivered pacing pulse and a subsequently delivered pacing pulse.

7. Regarding the rejection of claims 1, 2, 4-12, 14-22, and 24-30 as being anticipated by Van Dam, the Applicant argues that Van Dam fails to teach each and every aspect of the claimed invention. Specifically, the Applicant argues that Van Dam fails to teach detecting intrinsic ventricular activity within a sensed ventricular signal. However, in Figure 6, Van Dam illustrates a flow diagram of a cardiac cycle including detecting a ventricular sense event resulting from a delivered pacing pulse at step 200. Further, Van Dam discloses detecting intrinsic ventricular activity within the sensed ventricular signal at step 203.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 11-14, and 21-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Park et al. (U.S. 2003/0153954). Regarding claims 1, 11, and 21, Park et al. discloses a device which delivers a pacing pulse to a heart, detects intrinsic ventricular activity within the heart, and extends a pacing interval between pacing pulses based on detecting intrinsic ventricular activity (see paragraphs 22 and 24).

3. Regarding claims 2, 12, and 22, it is inherent that when the device of Park et al. extends the pacing interval between pacing pulses, thus increasing the amount of time between pulses, the detection of intrinsic ventricular activity is aided. If there is a longer period of time during which there is no pacing pulse, the possibility of detecting intrinsic ventricular activity is enhanced.

4. Regarding claims 3, 13, and 23, Park et al. discloses that modifying the pacing interval includes modulating an atrial to ventricular pacing delay (see paragraph 70, ln. 1-3).

5. Regarding claims 4, 14, and 24, Park et al. discloses that the pacing pulses which is delivered to the heart maybe be delivered to a ventricle of the heart (see paragraph 61, ln. 1-3).

6. Regarding claims 5 and 25, it is inherent that the subsequently delivered pacing pulse of Park et al. may be delivered to a ventricle of the heart after the delivered pacing pulse (see paragraph 61, ln. 1-3).

7. Claims 1, 2, 4-12, 14-22, and 24-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Dam (U.S. Patent No. 6,836,682). Regarding claims 1, 11, and 21, Park et al. discloses a pacing system that is capable of delivering a pacing pulse to a heart via leads 16 and 18, detects intrinsic ventricular activity (see col. 11, ln. 21-22), and extends a pacing interval between pacing pulses based on the detection of intrinsic ventricular activity (see col. 1, ln. 7-11).

8. Regarding claims 2, 12, and 22, it is inherent that when the device of Van Dam extends the pacing interval between pacing pulses, thus increasing the amount of time between pulses, the detection of intrinsic ventricular activity is aided. If there is a longer period of time during which there is no pacing pulse, the possibility of detecting intrinsic ventricular activity is enhanced.

9. Regarding claims 4, 14, and 24, Van Dam discloses ventricular pacing electrodes 28 and 29 at the distal end of ventricular pacing lead 18 which are capable of delivering a pacing pulse to a ventricle of the heart (see col. 4, ln. 19-21).

10. Regarding claims 5 and 25, it is inherent that the subsequently delivered pacing pulse of Van Dam may be delivered to a ventricle of the heart after the delivered pacing pulse (see col. 4, ln. 19-21).

11. Regarding claims 6, 15, and 26, Van Dam discloses that in order to detect intrinsic ventricular activity within the heart, a past ventricular signal is compared with the current ventricular signal (see col. 1, ln. 56-59).

12. Regarding claims 7, 16, and 27, the Examiner takes the position that it is inherent that the device of Van Dam utilizes a past ventricular signal where the heart is fully captured by the past pacing pulse. It is necessary for a pacing pulse to fully capture the heart in order to evoke a cardiac response that generates the QT interval of Van Dam.

13. Regarding claims 8, 17, and 28, Van Dam discloses that a past ventricular signal may be a most recent ventricular signal resulting from a most recent pacing pulse (see col. 11, ln. 37-41).

14. Regarding claims 9, 18, and 29, Van Dam discloses comparing at least one morphological characteristic of a past ventricular signal to the same morphological characteristic of the current ventricular signal (see col. 3, ln. 9-11).

15. Regarding claims 10, 19, and 30, Van Dam discloses that a morphological characteristic that may be used is a T-wave amplitude or T wave slope (see col. 3, ln. 9-11).

16. Regarding claim 20, Van Dam discloses memory 59 which may be used to store the past ventricular signal (see Figure 5).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammie Heller whose telephone number is 571-272-1986. The examiner can normally be reached on Monday through Friday from 7am until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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TKH